American Chemical Society
ENVR Division Technical Program
Fall 2021 National Meeting
August 22-26, 2021
Virender Sharma, Fall Program Chair; Christie Sayes, Asst. Fall Program Chair

Sunday 8/22/2021 – In-Person Session 2 / Virtual Session 1
10:30 AM - 12:30 PM (EDT)

**WISE: Women in Environmental Science & Engineering**
**Career Paths and Resilience**
Organizers: Dionysiou, Dionysios; University of Cincinnati|Sharma, Virender; Texas AM University
Oral – Virtual, Zoom Room 32

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
<th>Time</th>
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<tbody>
<tr>
<td>Resilient women: our collective role in advocating for each other and the future of environmental chemistry</td>
<td>Sharon Walker</td>
<td>10:30 AM</td>
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<tr>
<td>Why are women faculty in Europe lagging behind their colleagues in the U.S.?</td>
<td>Janet Hering</td>
<td>11:00 AM</td>
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<td>Path of privilege, water, and microbes</td>
<td>Katherine McMahon</td>
<td>11:30 AM</td>
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<tr>
<td>Women do amazing science: Hear us you can too</td>
<td>Michelle Scherer</td>
<td>12:00 PM</td>
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</tbody>
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Sunday 8/22/2021 – In-Person Session 3 / Virtual Session 2
2:00 PM - 4:00 PM (EDT)

**WISE: Women in Environmental Science & Engineering**
**Career Paths and Resilience**
Organizers: Dionysiou, Dionysios; University of Cincinnati|Sharma, Virender; Texas AM University
Oral – Hybrid, Thomas Murphy Ballroom Sections 1 & 2 (Georgia World Congress Center)

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<tbody>
<tr>
<td>Transformative work of women leaders in environmental science, technology and engineering</td>
<td>Sherine Obare</td>
<td>2:00 PM</td>
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<tr>
<td>Developing a community of fellowship in environmental chemistry</td>
<td>Lynn Katz</td>
<td>2:30 PM</td>
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<tr>
<td>Reluctant advocate: How a chemist learned to speak up for science and the environment</td>
<td>Kristen Kulinowski</td>
<td>3:00 PM</td>
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<tr>
<td>Simultaneous mitigation of greenhouse gases and heavy metal pollution with carbonate mineral precipitation</td>
<td>Catherine Peters</td>
<td>3:30 PM</td>
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</tbody>
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Sunday 8/22/2021 – In-Person Session 4 / Virtual Session 3

4:30 PM - 6:30 PM (EDT)

WISE: Women in Environmental Science & Engineering
Sensors, Materials, Interfaces and Nanotechnology
Organizers: Dionysiou, Dionysios; University of Cincinnati|Sharma, Virender; Texas AM University
Oral – Virtual, Zoom Room 36

Reflections on sensor-mediated solutions that enhance sustainability, data transparency and access to quality water  
Nancy Love  
4:30 PM

Developing next generation real time in situ sensing towards intelligent water infrastructure  
Baikun Li  
5:00 PM

Extracting and quantifying rare earth, critical and precious elements in consumer electronics  
Inez Hua  
5:30 PM

Nucleation and nanoscale interfacial processes for resilient and sustainable water-energy systems  
Young-Shin Jun  
6:00 PM

Sunday 8/22/2021 – Virtual Session 4

7:00 PM – 9:00 PM (EDT)

WISE: Women in Environmental Science & Engineering
Reactions and Analytical Environmental Chemistry
Organizers: Dionysiou, Dionysios; University of Cincinnati|Sharma, Virender; Texas AM University
Oral – Virtual, Zoom Room 36

Mechanisms of sulfite-mediated advanced oxidation processes  
Xiaohong Guan  
7:00 PM

Multiplication through transformation  
Linda Lee  
7:30 PM

Now you see it, now you don’t: Significance of transformation products of chemicals of emerging concern  
Diana Aga  
8:00 PM

Intrinsic supramolecular resilience of abiotic aqueous dissolved organic matter  
Martha Wells  
8:30 PM

Monday 8/23/2021 – In-Person Session 1

8:00 AM - 10:00 AM (EDT)

WISE: Women in Environmental Science & Engineering
Environmental Chemistry Interfaces and Reactions
Organizers: Dionysiou, Dionysios; University of Cincinnati|Sharma, Virender; Texas AM University
Oral – Hybrid, Thomas Murphy Ballroom Sections 1 & 2 (Georgia World Congress Center)

Chemistry and impacts of environmental interfaces  
Vicki Grassian  
8:00 AM

Compatibility of polyamide membranes with peracetic acid disinfectant: A comparative study with chlorine  
Ning Dai  
8:30 AM

Career focused on improving the safety of drinking water: New discoveries, potential risks, and promising solutions  
Susan Richardson  
9:00 AM

Advanced oxidation process with peracetic acid: Mechanism, modeling, and application  
Ching-Hua Huang  
9:30 AM
Monday 8/23/2021 – In-Person Session 2 / Virtual Session 1
10:30 AM - 12:30 PM (EDT)

WISE: Women in Environmental Science & Engineering  
Effects of Climate, Energy Extraction & Engineered Processes on Environmental Science & Policy  
Organizers: Dionysiou, Dionysios; University of Cincinnati| Sharma, Virender; Texas AM University  
Oral – Virtual, Zoom Room 36

- Climate change accelerates mobilization of rare earth elements in a mountain watershed in the Colorado Mineral Belt  
  Diane McKnight  
  10:30 AM
- Fossil energy in a modern world: Managing impacts on water and climate from domestic energy extraction  
  Desiree Plata  
  11:00 AM
- Environmental justice: Role of science, engineering, and policy in ensuring equity in urban water systems  
  Kimberly Jones  
  11:30 AM

Monday 8/23/2021 – In-Person Session 3 / Virtual Session 2
2:00 PM - 4:00 PM (EDT)

WISE: Women in Environmental Science & Engineering  
Biological Processes, Microbiome, and Public Health  
Organizers: Dionysiou, Dionysios; University of Cincinnati| Sharma, Virender; Texas AM University  
Oral – Virtual, Zoom Room 35

- Critical public health challenges call for our engagement: How can we help?  
  Barbara Turpin  
  2:00 PM
- Manipulating treatments, water chemistry, and system design to limit proliferation of pathogens and antibiotic resistance in water systems: A microbiome perspective  
  Amy Pruden  
  2:30 PM
- Management of nutrients and pathogens using hybrid adsorption biological treatment systems (HABITS)  
  Sarina Ergas  
  3:00 PM
- Elevated temperatures in municipal solid waste landfills due to exothermic abiotic reactions  
  Debra Reinhart  
  3:30 PM

Monday 8/23/2021 – In-Person Session 4 / Virtual Session 3
4:30 PM - 6:30 PM (EDT)

WISE: Women in Environmental Science & Engineering  
Biological Processes, Microbiome, and Public Health  
Organizers: Dionysiou, Dionysios; University of Cincinnati| Sharma, Virender; Texas AM University  
Oral – Hybrid, Thomas Murphy Ballroom Sections 1 & 2 (Georgia World Congress Center)

- Building the toolbox to address the complexity of exposures and effects of emerging contaminants  
  Rebecca Klaper  
  4:30 PM
- Influence of corrosion inhibitors on infection risk of *Legionella pneumophila* released from drinking water biofilms  
  Thanh Nguyen  
  5:00 PM
- From ocean microbiome to wastewater microbiome: A journey through an invisible world  
  Sunny Jiang  
  5:30 PM
- Fabrication of polymeric ultrafiltration membrane using green polymers and solvents  
  Isabel Escobar  
  6:00 PM
**Tuesday 8/24/2021 – In-Person Session 2 / Virtual Session 1**

10:30 AM - 12:30 PM (EDT)

**WISE: Women in Environmental Science & Engineering**

**Water Treatment and Reuse**

Organizers: Dionysiou, Dionysios; University of Cincinnati | Sharma, Virender; Texas AM University | Sayes, Christie; Baylor University

Oral – Virtual, Zoom Room 33

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<thead>
<tr>
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<tbody>
<tr>
<td>Removal of PAHs, PCBs, PFASs, and metals from stormwater using green infrastructure technologies</td>
<td>Staci Simonich</td>
<td>10:30 AM</td>
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<tr>
<td>Recent advances in electrodialysis for water reuse, desalination, and concentrate treatment</td>
<td>Pel Xu</td>
<td>11:00 AM</td>
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<td>Potable water reuse and desalination: More salt, less energy</td>
<td>Amy Childress</td>
<td>11:30 AM</td>
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<tr>
<td>Quantitative tools for assessing research impact on water treatment’s grand challenges</td>
<td>Meagan Mauter</td>
<td>12:00 PM</td>
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